

MILLCREEK TOWNSHIP SEWER AUTHORITY

MILLCREEK MUNICIPAL BUILDING
3608 WEST 26TH STREET
ERIE, PENNSYLVANIA 16506

Phone (814) 835-6721

Fax (814) 835-6615

TO: Millcreek Township Sewer Authority Board
George Riedesel

FROM: Rob Rodemoyer

DATE: January 2, 2008

SUBJECT: Cost Analysis – Glade Drive Sanitary Sewer Replacement

After reviewing mainline televising inspections and in anticipation of a potential capital improvement project for the replacement of sanitary sewer along Glade Drive, I have prepared a cost analysis breakdown and rate of return.

This project is intended to be a simple replace-in-kind. It has been determined that approximately 1,000 linear feet of 8" VCP will need to be replaced with 8" PVC along with additional replacement of all lateral connections to the property line adjacent to the replaced sewer main. The manholes have been determined to be in good condition and will not be replaced. Since Hill Engineering has recently prepared similar plans for our East Gore Improvements Project within the City of Erie, they have been contacted and are ready to prepare the necessary documents as directed

The following analysis is based upon estimated construction costs, transportation & treatment costs, and flow metering data. Additionally, I have attached flow metering graphs to indicate how the peak flows are reacting during rain events.

<u>Cost Analysis - Glade Drive Sanitary Sewer Replacement</u>	
Flow Metering Data: Average Flow = 114,600 GPD	
Domestic Flow: 42 Homes @ 400 GPD = 16,800 GPD	
Projected Clean Water: 114,600 GPD - 16,800 GPD = 97,800 GPD	
Projected Yearly Clean Water: 365 Days x 97,800 GPD = 35.70 MGY Total	
Transportation and Treatment Costs: \$700 / MGY	
Projected Clean Water Yearly Cost: 35.70 MGY x (\$700 / MGY) = \$25,000 Per Year	
Estimated Construction Cost (Sewer Replacement): \$175,000	
Anticipated Return: \$175,000 / \$25,000 Per Year = 7 Years	